

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: LUMARK

Report Number: P966089

Luminaire Tested: **NAV-SB4B-727-U-T2U-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966089  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-727-U-T2U-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16397.9 lumens  
Efficiency: N/A  
Efficacy: 111.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

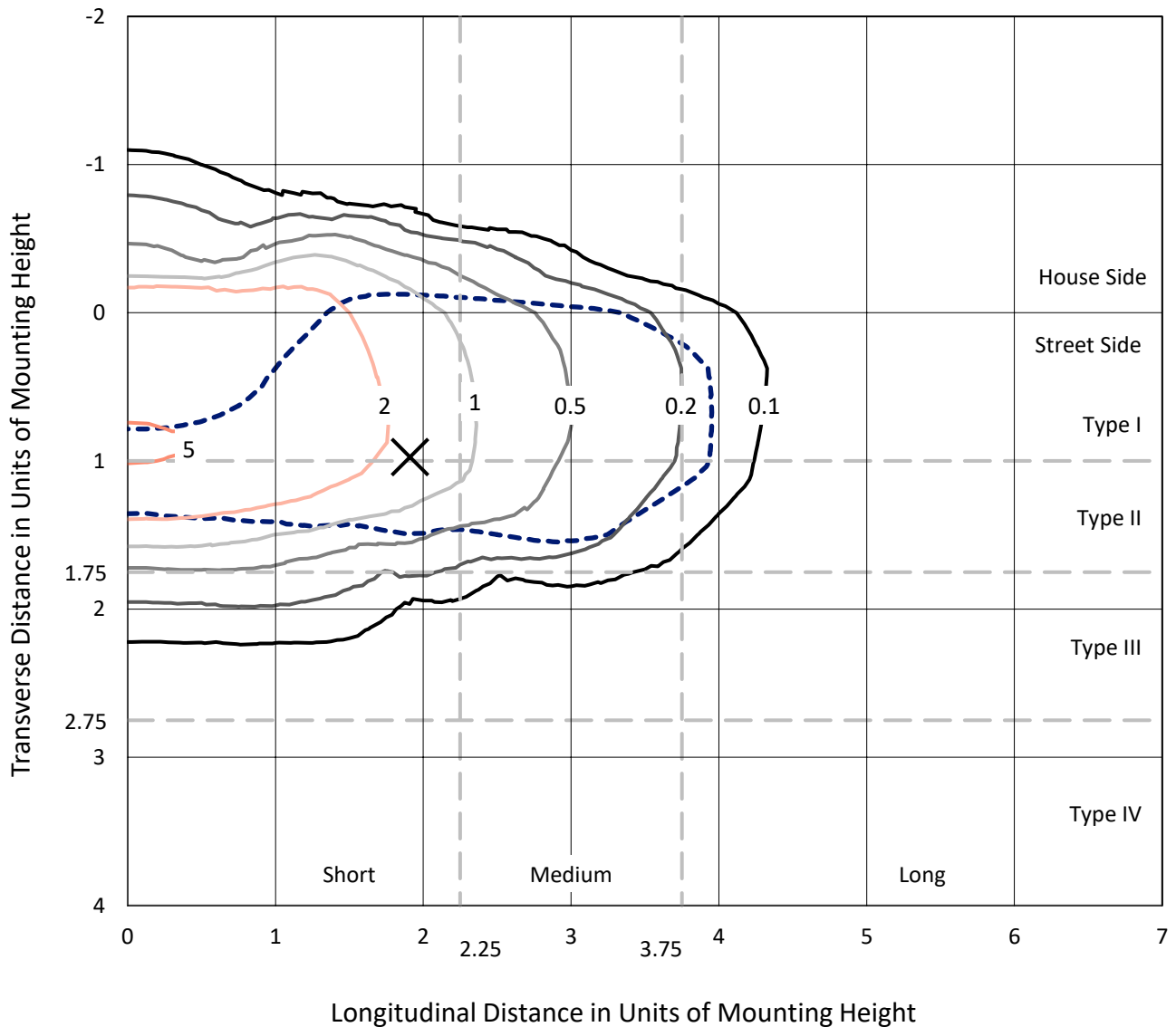
Input Watts (W): 147  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

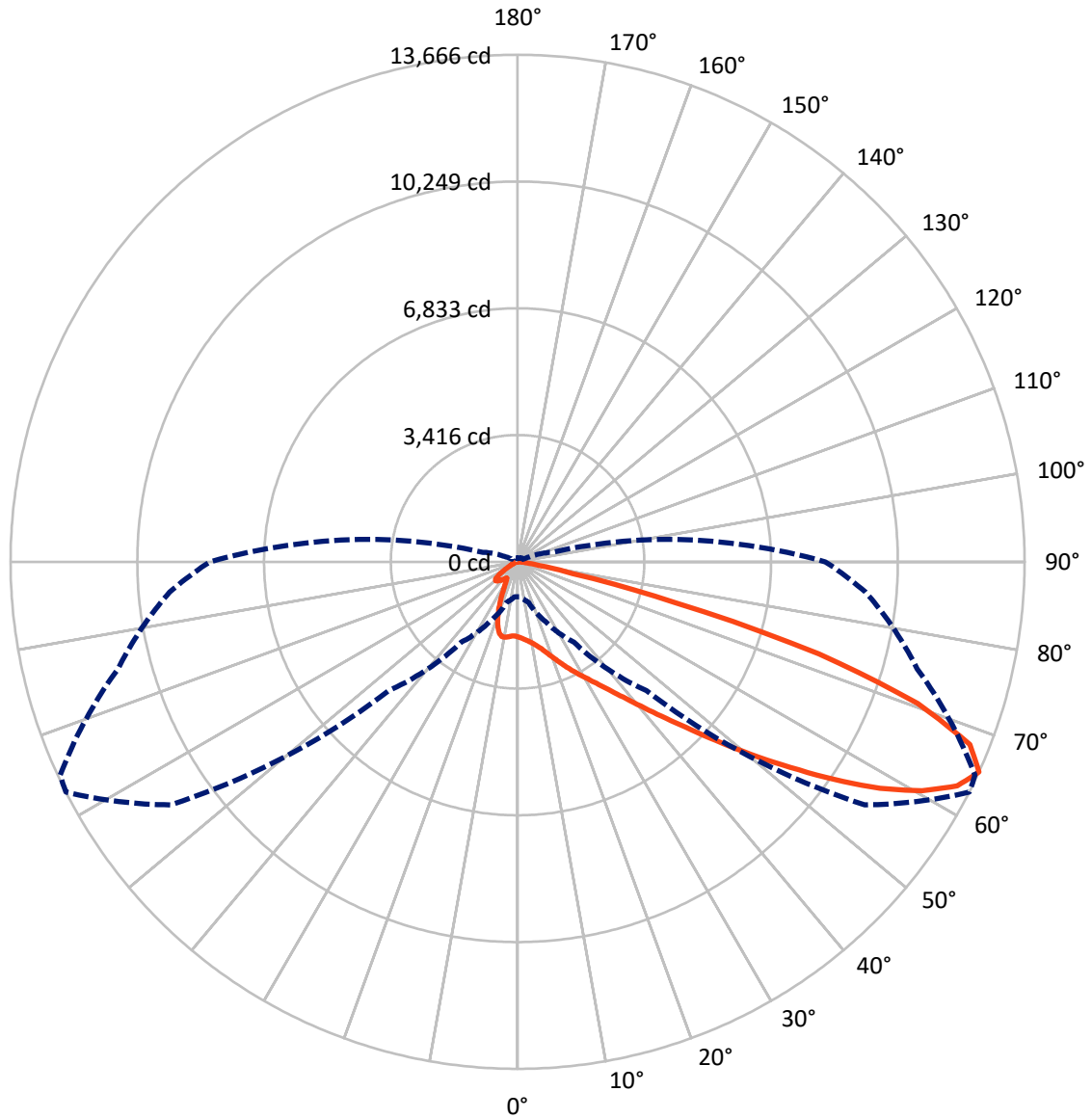
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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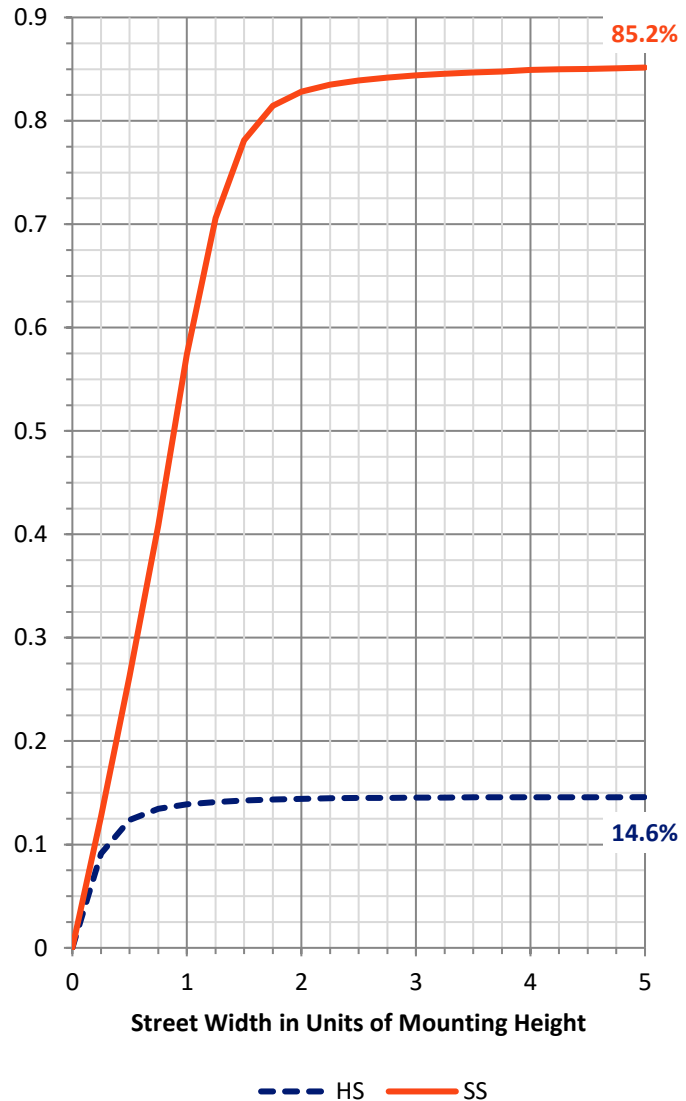
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2410.4	0.0	2410.4
	% Fixture	14.7	0.0	14.7
<b>Street Side</b>	Lumens	13987.6	0.0	13987.6
	% Fixture	85.3	0.0	85.3
<b>Total</b>	Lumens	16397.9	0.0	16397.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.7	1.2
10°-20°	529.1	3.2
20°-30°	921.2	5.6
30°-40°	1660.5	10.1
40°-50°	3293.2	20.1
50°-60°	4485.9	27.4
60°-70°	3580.6	21.8
70°-80°	1620.3	9.9
80°-90°	116.5	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	16397.9	100.0
0°-180°	16397.9	100.0

**Coefficient of Utilization**



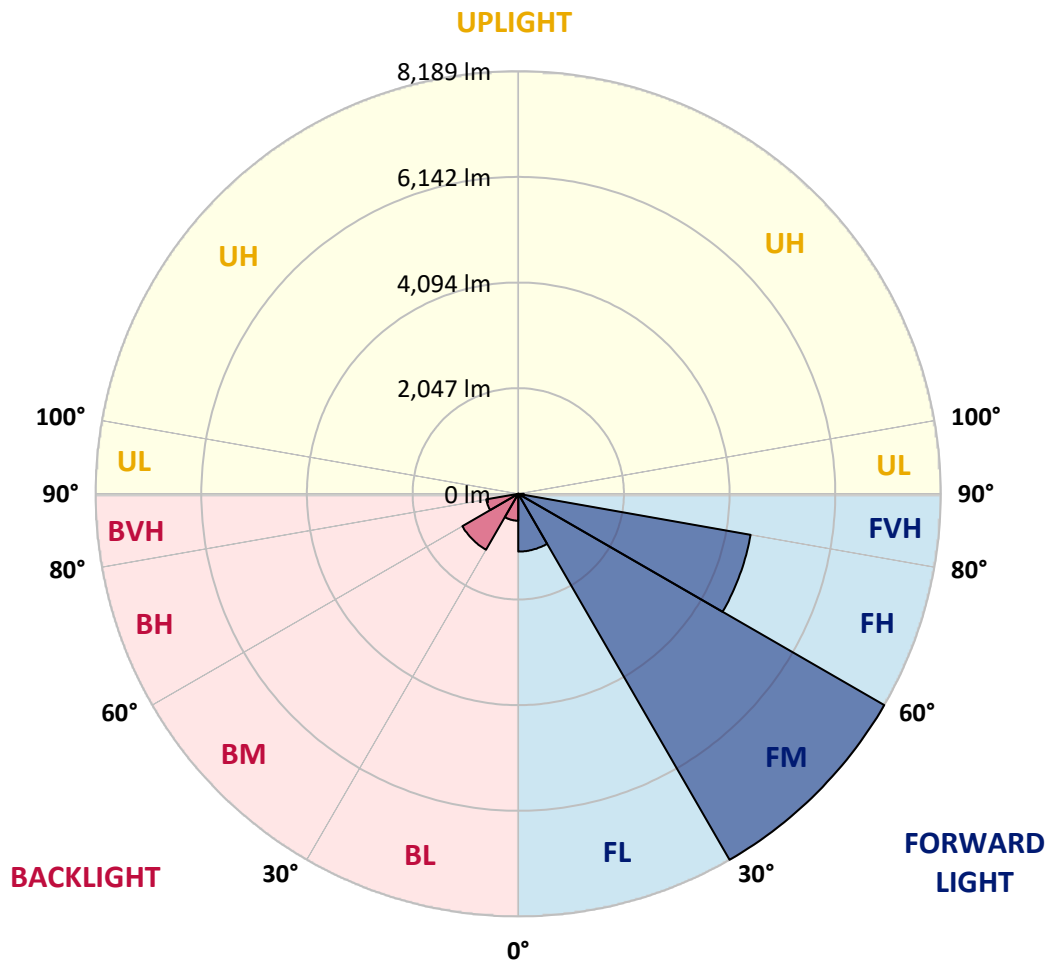
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1119.4	6.8			
FM (30°-60°)	8188.7	49.9			
FH (60°-80°)	4571.7	27.9			G2/5000
FVH (80°-90°)	107.8	0.7			G2/225
BL (0°-30°)	521.6	3.2	B2/1000		
BM (30°-60°)	1250.8	7.6	B2/2500		
BH (60°-80°)	629.2	3.8	B2/1000		G2/1000
BVH (80°-90°)	8.6	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9
2.5°	2071.2	2065.6	2073.5	2070.1	2067.8	2063.3	2061.1	2058.8	2054.3	2050.9	2037.4
5°	2076.9	2073.5	2081.4	2088.1	2094.9	2101.7	2105.0	2109.6	2105.0	2096.0	2082.5
7.5°	2029.5	2027.2	2044.2	2064.5	2094.9	2120.8	2149.0	2164.8	2165.9	2162.5	2147.9
10°	2026.1	2020.5	2037.4	2062.2	2101.7	2147.9	2197.5	2231.4	2235.9	2250.6	2234.8
12.5°	2079.1	2073.5	2097.1	2124.2	2164.8	2213.4	2274.3	2321.6	2328.4	2348.7	2337.4
15°	2168.2	2160.3	2187.4	2222.4	2274.3	2329.5	2393.8	2436.7	2442.4	2467.2	2446.9
17.5°	2272.0	2264.1	2295.7	2332.9	2389.3	2464.9	2539.3	2586.7	2593.6	2609.3	2572.0
20°	2405.2	2394.9	2419.8	2453.6	2513.4	2603.7	2692.8	2760.4	2759.3	2759.3	2698.4
22.5°	2559.6	2543.8	2565.3	2592.4	2648.8	2758.2	2876.7	2956.7	2956.7	2925.1	2824.8
25°	2725.5	2709.7	2733.4	2758.2	2807.9	2931.9	3070.7	3170.0	3174.5	3120.3	2960.1
27.5°	2933.0	2912.7	2930.8	2960.1	2989.5	3115.8	3280.5	3395.6	3397.9	3314.3	3088.7
30°	3332.4	3274.9	3218.5	3186.9	3200.5	3325.6	3501.6	3629.1	3640.4	3525.3	3228.6
32.5°	4063.4	4052.1	3853.6	3594.2	3458.8	3551.3	3748.7	3902.1	3908.8	3761.1	3410.3
35°	5199.4	5185.9	4866.6	4372.5	3931.5	3853.6	4048.7	4230.4	4225.9	4058.9	3646.0
37.5°	6555.4	6543.0	6122.2	5461.1	4747.1	4310.4	4435.7	4626.3	4654.5	4435.7	3950.7
40°	7713.9	7667.7	7401.5	6764.1	5830.0	5068.5	4986.2	5112.6	5141.9	4882.4	4337.6
42.5°	8591.7	8552.2	8416.8	8018.6	7140.9	6189.9	5634.8	5683.4	5716.1	5404.7	4782.0
45°	9046.2	9037.2	9091.3	9054.1	8476.5	7566.1	6562.2	6360.2	6372.6	5983.4	5286.3
47.5°	9110.6	9106.0	9353.1	9702.9	9625.0	9118.5	7752.3	7204.1	7160.0	6636.7	5834.5
50°	8731.6	8722.4	9196.3	9851.7	10392.1	10422.5	9103.7	8155.1	8058.0	7312.4	6406.5
52.5°	7521.0	7518.8	8297.2	9388.1	10661.7	11564.2	10439.4	9199.7	9037.2	8027.6	7011.2
55°	5787.2	5828.9	6721.2	8010.7	10169.8	12113.6	11638.7	10359.4	10110.1	8747.3	7568.4
57.5°	4099.5	4160.5	5042.6	6191.0	8644.6	11788.6	12449.8	11521.3	11252.9	9464.7	8133.6
60°	2202.0	2256.2	3139.5	4510.2	6431.4	10577.1	12877.3	12529.8	12276.0	10146.2	8643.5
62.5°	1312.0	1330.0	1695.6	2911.6	4350.0	8080.6	12695.6	13298.0	13089.4	10718.1	9086.8
65°	942.0	945.4	1129.2	1777.9	2640.9	4909.5	11422.1	13665.8	13601.5	11149.0	9415.1
67.5°	793.0	790.8	867.6	1181.1	1799.3	2459.3	8754.1	13145.8	13418.8	11422.1	9601.3
70°	680.3	683.7	773.9	865.3	1352.6	1392.1	4352.3	11445.8	12027.9	11494.2	9590.0
72.5°	506.6	517.8	601.3	788.5	1020.9	957.8	1502.6	8486.7	9539.3	10829.7	9092.5
75°	357.6	363.3	423.0	663.3	761.5	697.2	767.1	4387.2	5736.4	8302.8	7442.1
77.5°	275.2	285.4	320.4	463.6	750.2	489.6	469.2	1518.4	2332.9	5015.5	5102.4
80°	148.9	167.0	231.2	335.1	526.8	346.3	232.4	604.6	790.8	2345.3	1967.4
82.5°	76.7	85.7	161.3	241.4	300.1	302.4	115.1	251.5	326.1	724.3	269.6
85°	30.4	37.2	108.3	133.1	154.6	148.9	51.9	101.6	117.4	200.8	82.3
87.5°	6.8	11.3	39.5	30.4	29.3	31.6	12.4	23.7	22.5	23.7	14.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9	2023.9
2.5°	2036.3	2031.8	2019.4	2005.7	1989.9	1980.9	1975.3	1974.2	1966.3	1960.6	1966.3
5°	2070.1	2065.6	2041.9	2013.7	1983.2	1959.5	1936.9	1916.6	1887.3	1881.7	1879.4
7.5°	2137.7	2125.3	2087.0	2048.7	1991.1	1922.3	1838.8	1742.9	1657.2	1631.3	1618.8
10°	2221.3	2204.3	2155.8	2088.1	1960.6	1773.4	1571.4	1384.2	1235.2	1193.5	1177.7
12.5°	2316.0	2301.3	2237.1	2111.8	1833.2	1493.6	1184.5	952.1	807.7	771.6	761.5
15°	2428.8	2407.4	2318.2	2075.7	1605.3	1134.9	813.3	675.8	623.8	617.0	610.3
17.5°	2548.4	2513.4	2390.4	1946.0	1298.5	806.6	628.3	588.9	566.3	559.5	556.2
20°	2657.8	2612.7	2433.4	1749.7	970.2	628.3	562.9	537.0	516.7	508.8	504.3
22.5°	2767.2	2702.9	2433.4	1482.4	727.6	557.3	516.7	493.0	469.2	459.1	453.5
25°	2881.2	2795.5	2390.4	1184.5	585.5	511.1	472.6	446.7	426.4	414.0	409.5
27.5°	2991.8	2873.3	2292.3	902.5	521.2	470.4	432.0	407.2	388.1	379.0	379.0
30°	3096.6	2950.0	2154.7	684.8	479.5	430.9	394.8	373.4	354.2	345.2	346.3
32.5°	3238.8	3047.0	2008.0	561.8	443.3	393.7	361.0	340.7	323.8	317.0	317.0
35°	3436.2	3190.3	1881.7	551.7	412.9	363.3	330.6	311.4	294.5	288.8	288.8
37.5°	3715.9	3421.6	1815.1	619.3	388.1	336.2	305.8	285.4	269.6	265.1	263.9
40°	4061.2	3735.1	1851.3	687.1	371.2	312.5	283.1	262.8	249.3	243.6	242.5
42.5°	4470.6	4122.0	2050.9	738.9	359.9	292.2	261.7	239.1	230.1	227.9	227.9
45°	4941.1	4547.4	2356.6	794.2	341.8	273.0	240.3	223.3	216.6	215.5	214.3
47.5°	5475.9	5014.4	2710.8	863.0	323.8	254.9	223.3	212.1	206.4	204.2	204.2
50°	6006.0	5484.9	3075.2	901.4	309.1	238.0	209.8	200.8	196.3	195.2	195.2
52.5°	6561.0	5968.8	3369.7	865.3	296.7	224.5	198.5	191.8	187.3	186.1	186.1
55°	7090.1	6360.2	3420.4	734.4	271.8	210.9	186.1	182.8	177.1	177.1	176.0
57.5°	7545.8	6556.5	3061.7	539.3	247.0	190.6	173.7	170.4	165.8	164.7	163.6
60°	7964.5	6500.1	2363.3	363.3	220.0	170.4	158.0	155.7	151.2	145.5	144.4
62.5°	8200.2	6252.0	1616.5	236.9	192.9	148.9	139.9	138.8	128.6	117.4	115.1
65°	8289.3	5742.0	1008.5	172.6	161.3	127.5	120.7	118.5	103.8	91.3	90.2
67.5°	8211.5	4902.8	508.8	136.5	127.5	106.1	99.3	99.3	89.1	77.8	76.7
70°	7900.1	3675.3	214.3	109.5	98.2	81.2	81.2	85.7	75.5	63.1	62.0
72.5°	7224.4	2472.8	114.0	83.4	73.3	57.5	66.5	69.9	59.8	47.4	47.4
75°	5743.2	1508.3	78.9	62.0	46.2	40.6	50.7	53.0	40.6	31.6	30.4
77.5°	3928.0	866.4	53.0	39.5	29.3	23.7	35.0	32.7	21.4	14.7	15.8
80°	1724.9	361.0	30.4	18.0	11.3	9.0	12.4	9.0	6.8	4.5	4.5
82.5°	201.9	84.6	11.3	6.8	4.5	2.3	1.1	0.0	0.0	0.0	0.0
85°	41.7	10.1	5.6	2.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.9	2.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)